Water Supply Outlook For Nevada

SOIL CONSERVATION SERVICE
U.S. DEPARTMENT OF AGRICULTURE

Cooperating with

NEVADA DEPARTMENT of CONSERVATION
AND NATURAL RESOURCES
DIVISION OF WATER RESOURCES

AS OF
Jan. 1, 1983

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir-storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: FRESH POWDER SNOW ON ELEPHANT MOUNTAIN, NEAR WEST FORK OF HYALITE CREEK, MONTANA

Published by Soil Conservation Service

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504
Arizona	Room 3008, Federal Building, 230 N. First Ave., Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno, Nevada 89505
Oregon	1220 S. W. Third Ave., Portland, Oregon 97204
Utah	4420 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Snow Surveys Branch, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- for British Columbia by the Ministry of the Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia V8V 1X5 --- for Yukon Territory by the Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory Y1A 3V1 --- and for Alberta, Saskatchewan, and N.W.T. by the Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta T3C 1A6.

WATER SUPPLY OUTLOOK FOR NEVADA

AND

FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

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All averages are for 1963-77 period.

WATER SUPPLY OUTLOOK

FOR NEVADA

SNOW MEASUREMENTS

Snow measurements for January 1, 1983, are taken mainly from the SNOTEL system which provides water content and total precipitation.

The snowpack in Nevada and on the eastern slopes of the Sierra is excellent. January 1 snow water content is about 188% of average in the Tahoe-Truckee Basin, 185% in the Carson-Walker Basin, 180% in the Humboldt Basin, and 165% in the Snake and Owyhee Basins. The large storm which crossed Nevada, December 22-24, 1982, increased snow water content significantly and deposited up to ten feet of new snow in the Sierra. Snow water content at Marlette Lake and Donner Summit is presently at the highest recorded amounts since 1952.

Low elevation snow accumulation along the Sierra is 2-3 times what was present last year at this time. Heavier snowpacks this year are due to the lack of warm storms which removed the snow in the lower elevations last year. Low elevation snow in eastern Nevada is comparable to last year, and the higher elevation snow water content is significantly greater.

Sierra snowpack is approximately equal to what is normally present on March 1, while the Upper Humboldt is equal to February 1 and the Lower Humboldt is equal to April 1.

Figures supplied by the National Weather Service for the period beginning October 1, 1982 show precipitation at 200% of average in the Tahoe-Truckee Basin, 139% of average in the Humboldt, 170% of average in the Carson-Walker and 131% of average in the Snake-Owyhee. Precipitation amounts at higher elevations range from 15.0 inches at Lobdell Lake to 37.1 inches at Ward Creek #3 in the Sierra, and from 3.5 inches at Taylor Canyon to 17.2 inches at Jacks Peak in eastern Nevada. Precipitation in the higher elevations is essentially equal to what was recorded in 1982.

RESERVOIR STORAGE

Reservoir storage has increased significantly from last year at this time. The difference is due to the excellent runoff last year. The combined total usable storage of seven major reservoirs is now 1,070,000 acre feet as compared to 688,000 last year.

Lake Tahoe currently contains 570,000 acre feet of usable storage as compared to 330,000 acre feet last year at this time. Approximately 110,000 acre feet have been released from Lake Tahoe during December to accomodate for runoff during the spring. The main beneficiary of this release has been

Pyramid Lake. The level of Pyramid Lake rose 2.2 feet between October 1, 1982, and December 27, 1982, as compared to a rise of 5.15 feet during the 1982 Water Year. Walker Lake has increased 2.74 feet since October 1, compared to a rise of 2.12 feet from October 1, 1981 through September 30, 1982.

STREAMFLOW FORECASTS

Streamflow throughout Nevada and on the east slope of the Sierra should be excellent with all forecasts above 130% of average. Forecasts made at this time assume average precipitation for the remainder of the season.

STREAMFLOW FORECASTS (Thousand Acre Feet) as of: January 1, 1983

Forecasts are based on snow-water presently stored in the mountain watersheds and the assumption that precipitation will be near average throughout the forecast period. Peak flow forecasts indicate the most probable range for the maximum average 24-hour flow. All averages are for 1963-77 period.

FORECAST POINT	Forecast Period	Forecast This Year	This Year as Percent of Average	Average +
TRUCKEE RIVER				
Truckee River at Farad, CA1/	April-July	400	146	273
Lake Tahoe Rise in Feet (assuming gates closed)	April 1 to high	2.10	153	1.42
Little Truckee River above Boca, CA	April-July	140	163	86
CARSON RIVER				
East Carson near Gardnerville, NV	April-July	265	145	187
West Carson at Woodfords, CA	April-July	75	142	53
Carson River near Carson City, NV	April-July	270	147	183
Carson near Fort Churchill, NV	April-July	250	149	167
WALKER RIVER				
East Walker near Bridgeport, CA2/	April-Aug.	120	173	69
West Walker below Little Walker near Coleville, CA	April-July	220	151	146
HUMBOLDT				
Lamoille Creek near Lamoille, NV.	April-July	40	138	29
S. Fork Humboldt above Dixie Creek,NV	April-July	120	164	73
Marys River above Hot Springs, NV.	April-July	55	149	37
N. Fork Humboldt at Devils Gate, NV.	April-July	65	185	35
Humboldt River at Palisade, NV.	April-July	350	158	221
Humboldt River at Comus, NV.	April-July	280	157	178
Martin Creek near Paradise, NV.	April-July	25	167	15
SNAKE RIVER				
Owyhee River near Gold Creek, NV3/	April-July	30	130	23
Owyhee River near Owyhee, NV3/	April-July	110	138	80

NOTE: Streamflow forecasts which appear in this bulletin are a coordinated activity of the National Weather Service and the Soil Conservation Service.

1/ Observed flow plus change in storage in Boca, Stampede and Prosser Reservoirs, Donner, Independence and Martis Creek Lakes, and minus the flow at Truckee River at Tahoe City, California.
2/ Observed flow plus change in storage in Bridgeport Reservoir.
3/ Observed flow plus change in storage in Wild Horse Reservoir.

+1963-1977 period.

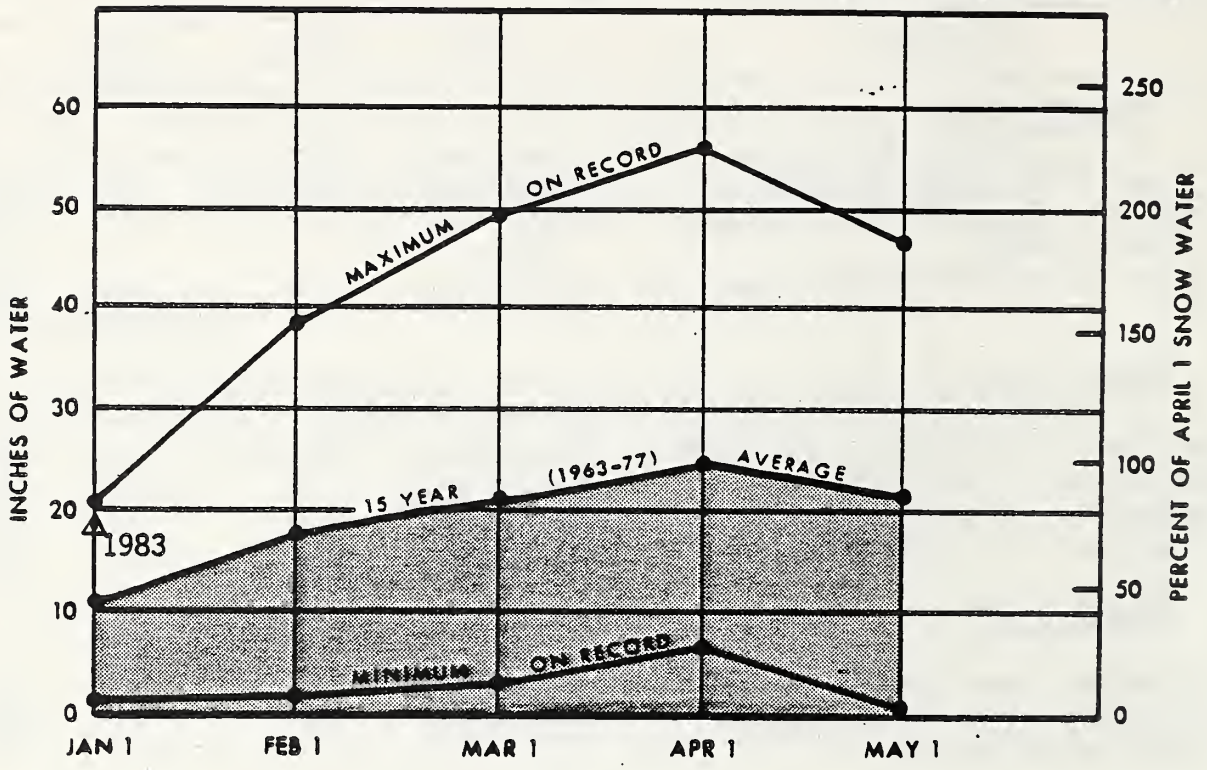
WINTER SNOWPACK

TAHOE, TRUCKEE, CARSON & WALKER BASINS

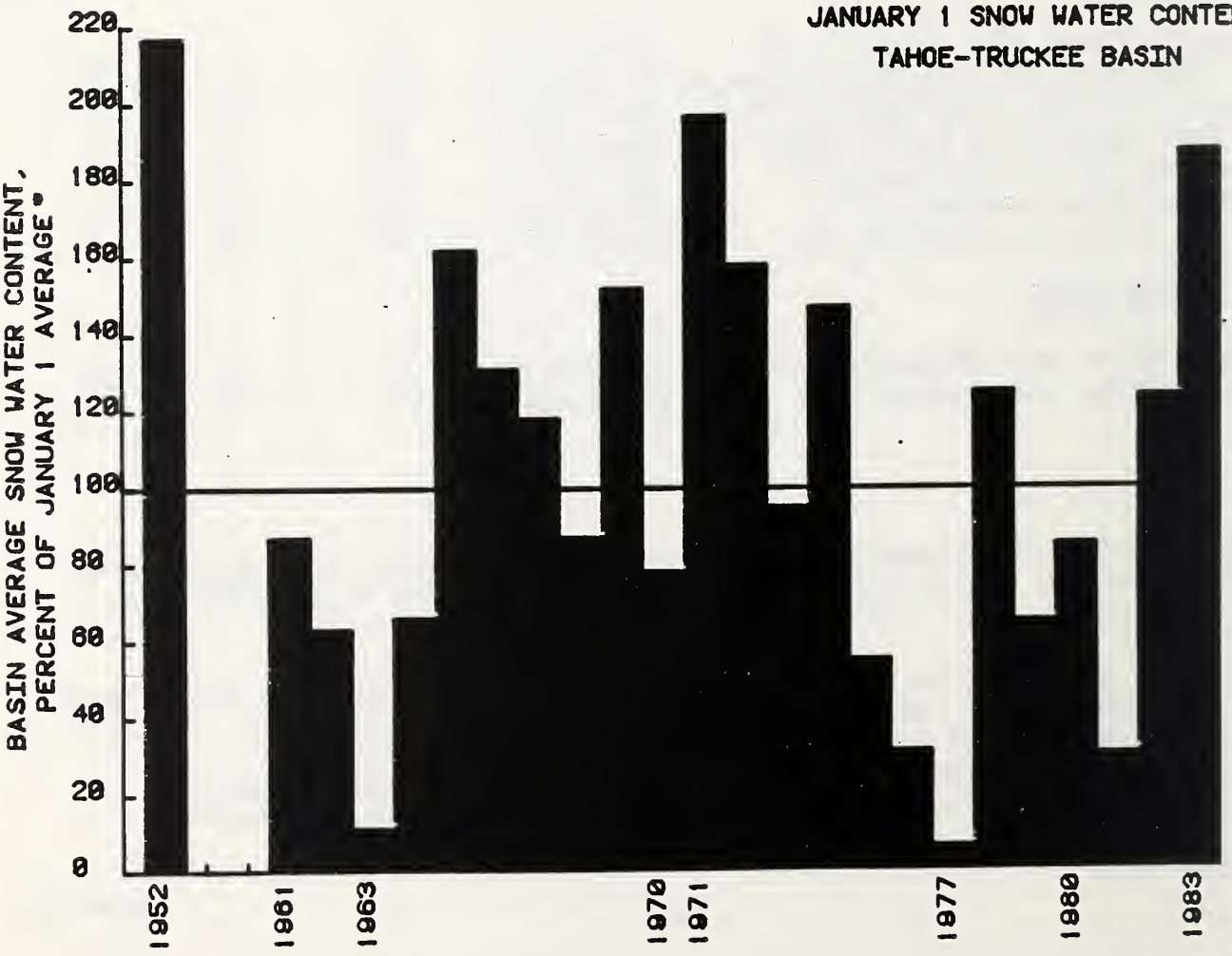
CALIFORNIA - NEVADA

1983

Data based on 9 long term Snow Courses



JANUARY 1 SNOW WATER CONTENT
TAHOE-TRUCKEE BASIN



*1963-77 Average

SATELLITE SNOW COVER

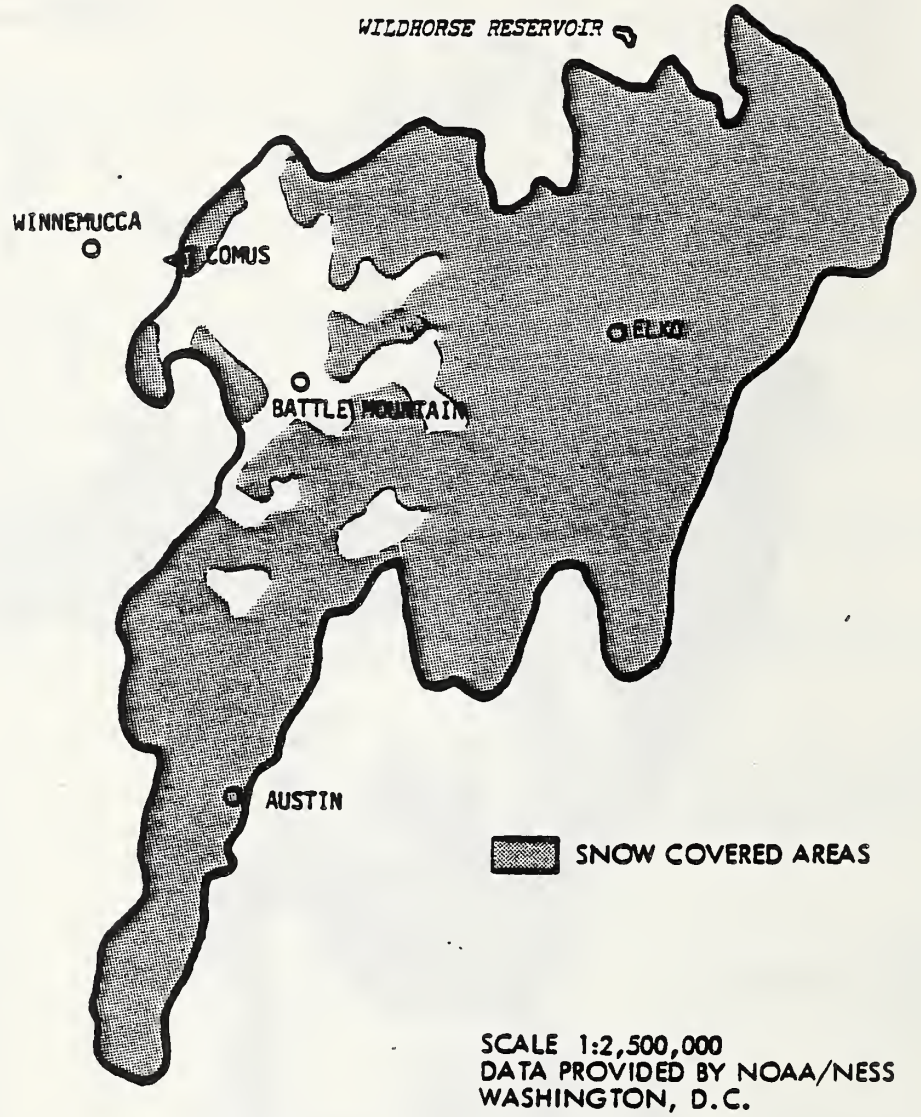
TAHOE-TRUCKEE, CARSON AND WALKER BASINS

SCALE 1:2,000,000
DATA PROVIDED BY NOAA/NESS
WASHINGTON D.C.

ASIN	THIS YEAR	PERCENT SNOW COVER	LAST YEAR	PERCENT SNOW COVER
AHOE-TRUCKEE	November 14, 1982	10.6%	November 29, 1981	56.0%
	December 28, 1982	50.0%	January 1, 1982	56.0%
ARSON	November 14, 1982	8.2%	November 29, 1981	30.0%
	December 28, 1982	25.0%	January 1, 1982	24.0%
ALKER	November 14, 1982	16.3%	November 29, 1981	77.0%
	December 28, 1982	46.0%	January 1, 1982	40.0%

SATELLITE SNOW COVER
HUMBOLDT RIVER ABOVE COMUS, NEVADA

JANUARY 1, 1982



SCALE 1:2,500,000
DATA PROVIDED BY NOAA/NESS
WASHINGTON, D.C.

THIS YEAR	PERCENT SNOW COVER	LAST YEAR	PERCENT SNOW COVER
November 23, 1982	45.1%	November 25, 1981	24.0%
		November 29, 1981	68.0%
		December 7, 1981	7.0%
		December 16, 1981	18.0%
		December 22, 1981	58.0%
December 28, 1982	87.0%	January 1, 1982	97.0%

RESERVOIR STORAGE (Thousand Acre Feet) AS OF January 1, 1983

Basin or Stream	RESERVOIR	Usable Capacity	Usable Storage		
			This Year	Last Year	Average+
Owyhee	Wild Horse	72	53	23	29
Lower Humboldt	Rye Patch	194	168	57	106
Colorado	Mohave	1,810	1,646	1,575	1,589
Colorado	Mead	26,159	23,151	22,681	17,421
Tahoe	Tahoe	745	570	370	445
Truckee	Boca	41	19	33	19
Truckee	Stampede**	222	210	115	112*
Truckee	Prosser***	30	9	9	8
Carson	Lahontan	295	201	164	187
West Walker	Topaz	59	35	25	31
East Walker	Bridgeport	42	24	16	27

* *Adjusted average.*
** *Storage began August 1, 1966.*
*** *Flood Control use allocation of 20,000 acre-feet between November 1 and April 10.*

TOTAL RESERVOIR STORAGE (Thousand Acre Feet)

MONTH	This Year	Last Year	Average +
October 1	1172	358	786
January 1	1070	688	844
February 1		804	920
March 1		935	968
April 1		1,047	1,010
May 1		1,148	1,032

The above data developed from Wild Horse, Rye Patch, Tahoe, Boca, Lahontan, Topaz, and Bridgeport Reservoirs in 1,000 Acre-feet.
TOTAL USABLE CAPACITY

PEAK FLOWS (MAXIMUM MEAN DAILY) (Av. flow for 24 hrs. on day of greatest flow)

FORECAST POINT	PEAK FLOW (SECOND FEET)	
	Forecast Range	Average +
No forecast issued January 1		

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
No forecast issued January 1			

+ 1963-1977 period.

SNOW COURSE MEASUREMENTS

DRAINAGE BASIN and/or SNOW COURSE NAME	Elevation	THIS YEAR: Date of Survey	THIS YEAR: Snow Depth (inches)	THIS YEAR: Water Content (inches)	PAST RECORD: Water Content Last Year	PAST RECORD: Water Content Average +
TAHOE-TRUCKEE BASIN						
Big Meadows	8,300	01/01/83		19.4s	15.9s	----
Central Sierra Snow Lab	6,900	01/03/83	90	25.2	----	15.0
Donner Summit (CA)	6,900	01/03/83	87	31.0	----	15.3
Echo Peak (CA)	7,800	01/01/83		28.7s	18.9s	17.8s
Echo Summit (CA)	7,450	12/29/82	72	21.3		13.0
Fallen Leaf (CA)	6,300	12/28/82	21	7.5	2.6s	4.0s
Hagan's Meadow (CA)	8,000	01/01/83		11.3s	8.8	7.4
Heavenly Valley (CA)	8,800	12/30/82	63	20.5	14.8	11.8
Independence Campe (CA)	7,000	01/01/83		15.1s	5.5s	8.1
Independence Creek (CA)	6,500	01/01/83		10.9s	2.8s	5.0s
Independence Lake (CA)	8,450	01/01/83		22.8s	27.3s	18.6s
Marlette Lake	8,000	01/01/83		18.2s	13.0s	8.7
Mount Rose	9,000	01/01/83		24.7s	20.4s	13.9s
Mount Rose Ski Area	8,850	01/01/83		33.4s	33.3	17.2
Rubicon #2 (CA)	7,500	01/01/83		21.4s	14.3s	13.1s
Squaw Valley Gold Coast (CA)	8,200	01/01/83		35.9s	34.3s	18.5s
Tahoe City Cross (CA)	6,750	01/01/83		13.7s	4.7	6.0
Truckee #2 (CA)	6,400	01/01/83		12.4s	2.1	6.4s
Ward Creek #3 (CA)	6,750	01/01/83		23.2s	11.5s	12.1
CARSON-WALKER BASIN						
Blue Lake (CA)	8,000	01/01/83		23.3s	16.1s	15.6s
Ebbetts Pass #2 (CA)	8,700	01/01/83		25.6s	26.3s	16.1s
Leavitt Meadows (CA)	7,200	01/01/83		11.9s	3.3s	3.0s
Lobdell Lake (CA)	9,200	01/01/83		15.1s	10.4s	7.3s
Poison Flat #2 (CA)	7,900	01/01/83		13.5s	----	----
Sonora Pass Bridge (CA)	8,800	01/01/83		19.6s	14.6s	10.0
Spratt Creek (CA)	6,100	01/01/83		6.7s	1.2s	----
Virginia Lakes Ridge (CA)	9,200	01/01/83		13.1s	9.6s	6.6
Wet Meadows #2 (CA)	8,050	01/01/83		26.0s	20.5s	14.0s
NORTHERN GREAT BASIN						
Cedar Pass (CA)	7,100	01/01/83		9.2s	7.4s	8.1s
Disaster Peak	6,500	01/01/83		10.3s	9.9s	5.4s
Dismal Swamp #2 (CA)	7,000	01/01/83		16.1s	17.6s	10.5s
SNAKE RIVER						
Bear Creek	7,800	01/01/83		10.9s	11.7s	8.1
Goat Creek	8,800	01/01/83		8.4s	10.2	7.9
Pole Creek Ranger Station	8,300	01/01/83		8.8s	10.8	9.1
Seventy Six Creek	7,100	01/01/83		8.2s	8.7s	5.3
OWYHEE RIVER						
Big Bend	6,700				4.5s	5.0s
Fawn Creek	7,000	01/01/83		10.6s	8.5s	5.3s
Jack Creek, Upper	7,250	01/01/83		15.2s	11.5s	6.0s
Laurel Draw	6,700	01/01/83		5.1s	7.7s	3.2s
Taylor Canyon	6,200	12/29/83	20	5.1	3.6	2.1
EASTERN NEVADA						
Berry Creek	9,100	01/01/83		8.6s	5.3s	6.4s
Hole-in-Mountain	7,900	01/01/83		7.5s	16.2s	10.0s
Ward Mountain #2	7,400	01/01/83		8.3s	3.8s	3.8s
HUMBOLDT						
Big Creek Summit	8,700	01/01/83		10.3s	2.5s	5.4s
Buckskin, Lower	6,700	01/01/83		6.6s	5.0s	3.6s
Corral Canyon	8,500	01/01/83		6.8s	4.9s	5.0s
Dorsey Basin	8,100	01/01/83		9.9s	8.1s	5.5s
Granite Peak	7,800	01/01/83		18.5s	14.8s	7.6s
Green Mountain	8,000	01/01/83		8.1s	7.6s	5.8s
Lamance Creek	6,000	01/01/83		8.3s	9.8s	4.4s
Lamollie #3	7,700	01/01/83		7.7s	7.4s	5.0s
Tremewan Ranch	5,700	12/29/83	9	1.9	2.3	1.0

* Less than 15 year record

s SNOTEL provisional

NR No Report to date

NOTE:
All averages based on 1963-77, 15 year period.

+ 1963-1977 per

SNOW COURSE MEASUREMENTS

DRAINAGE BASIN and/or SNOW COURSE NAME	Elevation	THIS YEAR: Date of Survey	THIS YEAR: Snow Depth (inches)	THIS YEAR: Water Content (inches)	PAST RECORD: Water Content: Last Year	PAST RECORD: Water Content: Average +
DESERT RESEARCH INSTITUTE MEASUREMENTS						
TAHOE-TRUCKEE BASIN						
Alder Creek	6,960	01/01/83	88	20.3	----	----
Apollo Way	7,300	01/01/83	57	14.6	4.4	----
Bennett Flat	6,200	01/01/83	43	12.4	----	----
Brockway Summit	7,200	01/01/83	69	17.8	----	----
Clear Creek	5,700	01/01/83	4	1.2	----	----
Cliff Ranch, Franktown	5,250	01/01/83	1	0.2	----	----
Davis Creek	5,160	01/01/83	1	0.1	----	----
Evergreen Hills	5,700	01/01/83	6	1.8	0.9	----
Fuller Lake	6,200	01/01/83	11	2.9	----	----
Galena Creek	7,440	N/S			----	----
Henness Pass Junction	6,410	01/01/83	35	9.9	----	----
Hobart Mills	5,850	01/01/83	26	8.8	----	----
Incline Lake	8,000	01/01/83	73	23.1	13.8	----
Jones Creek	6,000	01/01/83	8	2.6	0.7	----
Junction 395 & Nevada 27	4,590	01/01/83	0	0	----	----
Lancer	5,110	01/01/83	T	T	0.2	----
Little Valley	6,540	01/01/83	29	10.3	----	----
Mount Rose Resort	8,280	01/01/83	85	26.5	23.0	----
North Star Fire Department	6,320	01/01/83	25	7.0	----	----
RNR Forestry Site	6,400	01/01/83	31	8.3	1.8	----
Reindeer Lodge	7,060	01/01/83	47	14.8	1.9	----
Sagehen Creek	6,340	01/01/83	30	9.0	----	----
Sky Tavern	7,620	01/01/83	62	19.6	8.1	----
Slide Mountain	9,650	01/01/83	100	30.0	----	----
Spooner Summit	7,620	01/01/83	46	13.8	----	----
Squaw Valley Fire Department	6,240	01/01/83	48	16.9	----	----
Tahoe City	6,240	01/01/83	35	11.6	----	----
Tahoe Meadows	8,540	01/01/83	110	33.0	32.2	----
Tamarack Lake	8,820	01/01/83	85	29.3	32.1	----
Third and Incline Creeks	6,235	01/01/83	11	4.2	0.9	----
Thunder Cliff	6,200	01/01/83	36	12.7	----	----
Truckee-Tahoe Airport	5,900	01/01/83	14	4.1	----	----
Whitas Creek	5,670	01/01/83	4	1.2	----	----

T=TRACE

+ 1963-1977 period.

PRECIPITATION (Inches)

BASIN AND PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT RECORD			PAST RECORD
		PERIOD OF MEASUREMENT	ACCUM. PRECIP. FOR THE PERIOD	ACCUM. PRECIP. SINCE 10/1/82	ACCUM. PRECIP. PREVIOUS YEAR
TAHOE-TRUCKEE					
Big Meadows	8,300	10/1/82 to 10/31/82	5.5	5.5	4.2
		11/1/82 to 11/30/82	7.1	12.6	11.0
		12/1/82 to 12/31/82	8.2	20.8	9.3
Central Sierra Snow Lab (CA)	6,900	10/1/82 to 10/31/82	10.9	10.4	
		11/1/82 to 11/30/82	12.7	23.1	
		12/1/82 to 12/31/82	12.7	35.8	
Echo Peak (CA)	7,800	10/1/82 to 10/31/82	8.2	8.2e	5.6
		11/1/82 to 11/30/82	13.1	21.3e	16.5
		12/1/82 to 12/31/82	15.3	36.6e	17.4
Fallen Leaf (CA)	6,240	10/1/82 to 10/31/82	4.0	4.0	4.7
		11/1/82 to 11/30/82	6.4	10.4	14.0
		12/1/82 to 12/31/82	8.4	18.3	13.3
Hagan's Meadow (CA)	8,000	10/1/82 to 10/31/82	3.0	3.0	3.0
		11/1/82 to 11/30/82	4.3	7.3	7.8
		12/1/82 to 12/31/82	6.5	13.8	8.2
Heavenly Valley (CA)	8,800	10/1/82 to 10/31/82	4.5	4.5	3.9
		11/1/82 to 11/30/82	7.3	11.8	8.7
		12/1/82 to 12/31/82	6.5	18.3	7.1
Independence Camp (CA)	7,000	10/1/82 to 10/31/82	6.3	6.3	4.0
		11/1/82 to 11/30/82	5.1	11.4	14.9
		12/1/82 to 12/31/82	6.6	18.0	11.5
Independence Creek (CA)	6,500	10/1/82 to 10/31/82	6.4	6.4	4.6
		11/1/82 to 11/30/82	5.6	12.0	16.9
		12/1/82 to 12/31/82	7.5	19.5	12.3
Independence Lake (CA)	8,450	10/1/82 to 10/31/82	8.3	8.3	4.9
		11/1/82 to 11/30/82	6.9	15.2	16.0
		12/1/82 to 12/31/82	9.6	24.8	12.7
Marlette Lake	8,000	10/1/82 to 10/31/82	4.6	4.6	4.0
		11/1/82 to 11/30/82	8.3	12.9	10.0
		12/1/82 to 12/31/82	7.3	20.2	7.4
Mount Rose	9,000	10/1/82 to 10/31/82	5.2	5.2	4.2
		11/1/82 to 11/30/82	8.3	13.5	10.3
		12/1/82 to 12/31/82	7.5	21.0	8.3
Mount Rose Ski Area	8,850	10/1/82 to 10/31/82	7.5	7.5	6.5
		11/1/82 to 11/30/82	12.8	20.3	19.3
		12/1/82 to 12/31/82	15.7	36.0	17.5
Rubicon #2 (CA)	7,500	10/1/82 to 10/31/82	8.3	8.3	5.1
		11/1/82 to 11/30/82	8.4	16.7	16.2
		12/1/82 to 12/31/82	8.6	25.3	12.7
Squaw Valley Gold Coast (CA)	7,800	10/1/82 to 10/31/82	10.3	10.3	8.2
		11/1/82 to 11/30/82	13.3	23.6	23.7
		12/1/82 to 12/31/82	10.6	34.2	24.3
Tahoe City Cross (CA)	6,750	10/1/82 to 10/31/82	5.8	5.8	4.7
		11/1/82 to 11/30/82	7.0	12.8	15.6
		12/1/82 to 12/31/82	7.8	20.6	13.9
Truckee #2	6,400	10/1/82 to 10/31/82	5.5	5.5	4.2
		11/1/82 to 11/30/82	6.0	11.5	13.8
		12/1/82 to 12/31/82	6.7	18.2	11.4
Ward Creek #3	6,750	10/1/82 to 10/31/82	12.1	12.1	10.2
		11/1/82 to 11/30/82	12.0	24.1	28.6
		12/1/82 to 12/31/82	13.0	37.1	23.0

e=ESTIMATED

PRECIPITATION (Inches)

BASIN AND PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT RECORD			PAST RECORD
		PERIOD OF MEASUREMENT	ACCUM. PRECIP. FOR THE PERIOD	ACCUM. PRECIP. SINCE 10/1/82	ACCUM. PRECIP. PREVIOUS YEAR
CARSON-WALKER					
Blue Lakes (CA)	8,000	10/1/82 to 10/31/82	9.6	9.6	5.5
		11/1/82 to 11/30/82	10.4	20.0	12.2
		12/1/82 to 12/31/82	10.4	30.4	11.7
Ebbetts Pass #2 (CA)	8,700	10/1/82 to 10/31/82	9.1	9.1	6.1
		11/1/82 to 11/30/82	12.2	21.3	19.1
		12/1/82 to 12/31/82	11.8	33.1	32.5
Leavitt Meadows (CA)	7,200	10/1/82 to 10/31/82	7.4	7.4	5.3
		11/1/82 to 11/30/82	6.2	13.6	14.6
		12/1/82 to 12/31/82	5.8	19.4	21.4
Lobdell Lake (CA)	9,200	10/1/82 to 10/31/82	3.7	3.7	3.2
		11/1/82 to 11/30/82	5.1	8.8	8.0
		12/1/82 to 12/31/82	6.2	15.0	11.3
Pine Nut Creek (CA)	6,600	10/1/82 to 10/31/82	NR		6.7
		11/1/82 to 11/30/82			10.0
		12/1/82 to 12/31/82			10.6
Poison Flat (CA)	7,900	10/1/82 to 10/31/82	6.8	6.8	4.2
		11/1/82 to 11/30/82	7.0	13.8	12.5
		12/1/82 to 12/31/82	7.0	20.8	N/R
Sonora Pass Bridge (CA)	8,800	10/1/82 to 10/31/82	7.0	7.0	4.7
		11/1/82 to 11/30/82	9.5	16.5	12.5
		12/1/82 to 12/31/82	6.8	23.3	21.5
Spratt Creek (CA)	6,080	10/1/82 to 10/31/82	7.2	7.2	3.9
		11/1/82 to 11/30/82	7.6	14.8	14.4
		12/1/82 to 12/31/82	7.3	22.1	22.1
Virginia Lakes Ridge (CA)	9,200	10/1/82 to 10/31/82	3.2	3.2	3.1
		11/1/82 to 11/30/82	5.4	8.6	8.3
		12/1/82 to 12/31/82	6.8	15.4	13.4
Wet Meadows #2 (CA)	8,050	10/1/82 to 10/31/82	9.0	9.0	6.1
		11/1/82 to 11/30/82	10.5	19.5	19.3
		12/1/82 to 12/31/82	9.1	28.6	31.2
HUMBOLDT					
Big Creek Summit	8,700	10/1/82 to 10/31/82	2.2	2.2	1.6
		11/1/82 to 11/30/82	2.0	4.2	2.1
		12/1/82 to 12/31/82	4.2	8.4	5.0
Buckskin, Lower	6,700	10/1/82 to 10/31/82	2.0	2.0	3.3
		11/1/82 to 11/30/82	2.9	4.9	9.2
		12/1/82 to 10/31/82	5.1	9.0	14.0
Corral Canyon	8,500	10/1/82 to 10/31/82	3.6	3.6	3.6
		11/1/82 to 11/30/82	2.1	5.7	5.0
		12/1/82 to 12/31/82	4.6	10.3	10.5
Dorsey Basin	8,100	10/1/82 to 10/31/82	4.0	4.0	3.7
		11/1/82 to 11/30/82	2.5	6.5	5.5
		12/1/82 to 12/31/82	5.8	12.3	14.3
Fry Canyon	6,700		NR		
Granite Peak	7,800	10/1/82 to 10/31/82	2.7	2.7	2.9
		11/1/82 to 11/30/82	5.1	7.8	10.1
		12/1/82 to 12/31/82	6.1	13.9	17.5
Green Mountain	8,000	10/1/82 to 10/31/82	2.9	2.9	4.3
		11/1/82 to 11/30/82	2.9	5.8	5.6
		12/1/82 to 12/31/82	6.1	11.9	13.0
Lamance Creek	6,000	10/1/82 to 10/31/82	3.5	3.5	4.2
		11/1/82 to 11/30/82	3.8	7.3	12.0
		12/1/82 to 12/31/82	4.5	11.8	20.5

PRECIPITATION (Inches)

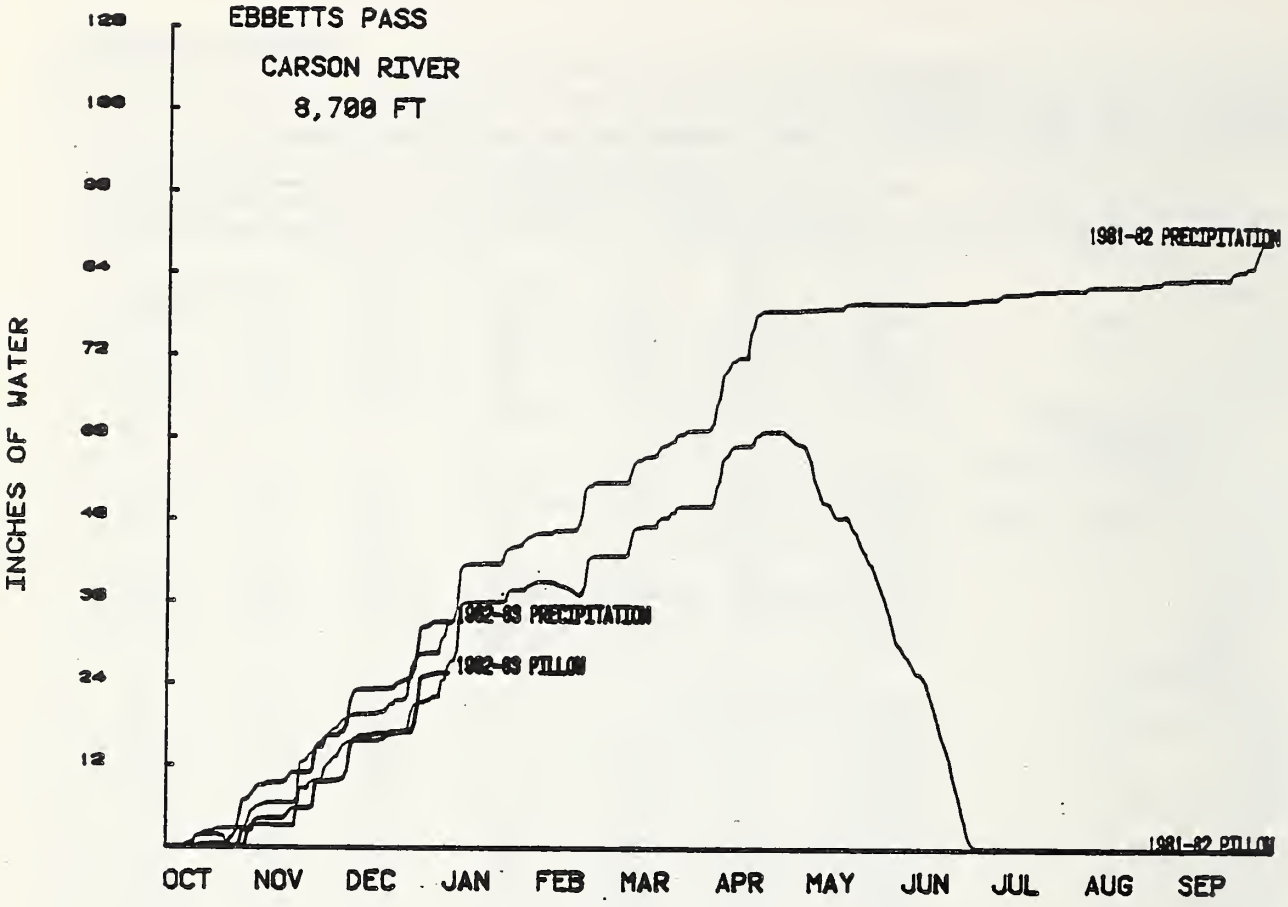
BASIN AND PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT RECORD			PAST RECORD
		PERIOD OF MEASUREMENT	ACCUM. PRECIP. FOR THE PERIOD	ACCUM. PRECIP. SINCE 10/1/82	ACCUM. PRECIP. PREVIOUS YEAR
HUMBOLDT (Cont.)					
Lamoille #3	7,700	10/1/82 to 10/31/82	2.9	2.9	2.7
		11/1/82 to 11/30/82	2.9	5.8	5.2
		12/1/82 to 12/31/82	4.9	10.7	13.0
SNAKE-OWYHEE					
Bear Creek	7,800	10/1/82 to 10/31/82	2.8	2.8	2.6
		11/1/82 to 11/30/82	3.4	6.2	4.5
		12/1/82 to 12/31/82	5.2	11.4	15.7
Big Bend	6,700	10/1/82 to 10/31/82	2.7	2.7	1.2
		11/1/82 to 11/30/82	1.3	4.0	4.3
		12/1/82 to 12/31/82	1.9	5.9	9.8
Fawn Creek	7,000	10/1/82 to 10/31/82	4.8	4.8	2.9
		11/1/82 to 11/30/82	3.6	8.4	7.9
		12/1/82 to 12/31/82	4.4	12.8	17.0
Goat Creek	8,800	10/1/82 to 10/31/82	2.3	2.3	2.3
		11/1/82 to 11/30/82	1.9	4.2	6.2
		12/1/82 to 12/31/82	3.6	7.8	14.3
Jack Creek #2, Upper	7,250	10/1/82 to 10/31/82	4.7	4.7	2.9
		11/1/82 to 11/30/82	2.0	6.7	7.6
		12/1/82 to 12/31/82	5.1	11.8	16.8
Jacks Peak	8,420	10/1/82 to 10/31/82	5.9	5.9	3.5
		11/1/82 to 11/30/82	4.1	10.0	9.4
		12/1/82 to 12/31/82	7.2	17.2	21.0
Laurel Draw	6,700	10/1/82 to 10/31/82	3.4	3.4	2.1
		11/1/82 to 11/30/82	2.9	6.3	6.2
		12/1/82 to 12/31/82	3.3	9.6	15.6
Pole Creek Ranger Station	8,330	10/1/82 to 10/31/82	1.9	1.9	1.5
		11/1/82 to 11/30/82	1.7	3.6	3.7
		12/1/82 to 12/31/82	3.4	7.0	8.2
Seventy-Six Creek	7,100	10/1/82 to 10/31/82	2.8	2.8	1.3
		11/1/82 to 11/30/82	2.4	5.2	4.2
		12/1/82 to 12/31/82	3.0	8.2	11.5
Taylor Canyon	6,200	10/1/82 to 10/31/82	1.2	1.2	1.2
		11/1/82 to 11/30/82	0.7	1.9	3.9
		12/1/82 to 12/31/82	1.6	3.5	7.6
EASTERN NEVADA					
Berry Creek	9,100	10/1/82 to 10/31/82	2.2	2.2	6.8
		11/1/82 to 11/30/82	1.7	3.9	7.3
		12/1/82 to 12/31/82	4.1	8.0	9.9
Hole-in-Mountain	7,900	10/1/82 to 10/31/82	3.9	3.9	1.9
		11/1/82 to 11/30/82	2.8	6.7	5.6
		12/1/82 to 12/31/82	3.9	10.6	N/R
Ward Mountain	8,900	10/1/82 to 10/31/82	2.8	2.8	6.6
		11/1/82 to 11/30/82	2.3	5.1	7.0
		12/1/82 to 12/31/82	4.1	9.2	8.3
NORTHERN GREAT BASIN					
Cedar Pass (CA)	7,100	10/1/82 to 10/31/82	4.6	4.6	5.6
		11/1/82 to 11/30/82	4.4	9.0	12.9
		12/1/82 to 12/31/82	6.0	15.0	21.5
Disaster Peak	6,500	10/1/82 to 10/31/82	2.1	2.1	2.3
		11/1/82 to 11/30/82	5.6	7.7	8.0
		12/1/82 to 12/31/82	3.8	11.5	15.4
Dismal Swamp #2 (CA)	7,050	10/1/82 to 10/31/82	4.8	4.8	7.8
		11/1/82 to 11/30/82	8.4	13.2	19.0
SNOTEL Provisional		12/1/82 to 12/31/82	8.7	21.9	33.6

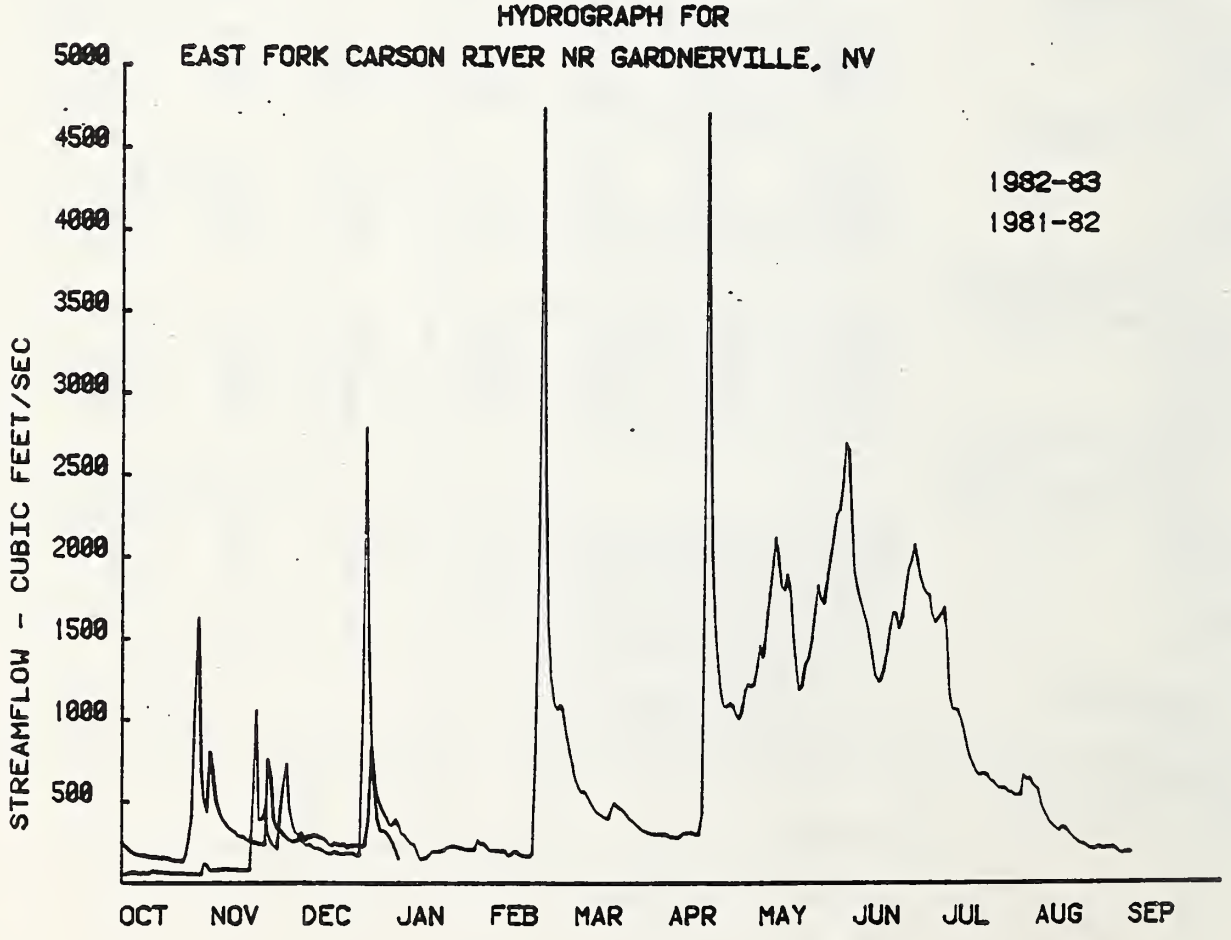
PRECIPITATION (Inches) for December, 1982 - NATIONAL WEATHER SERVICE, RENO, NEVADA

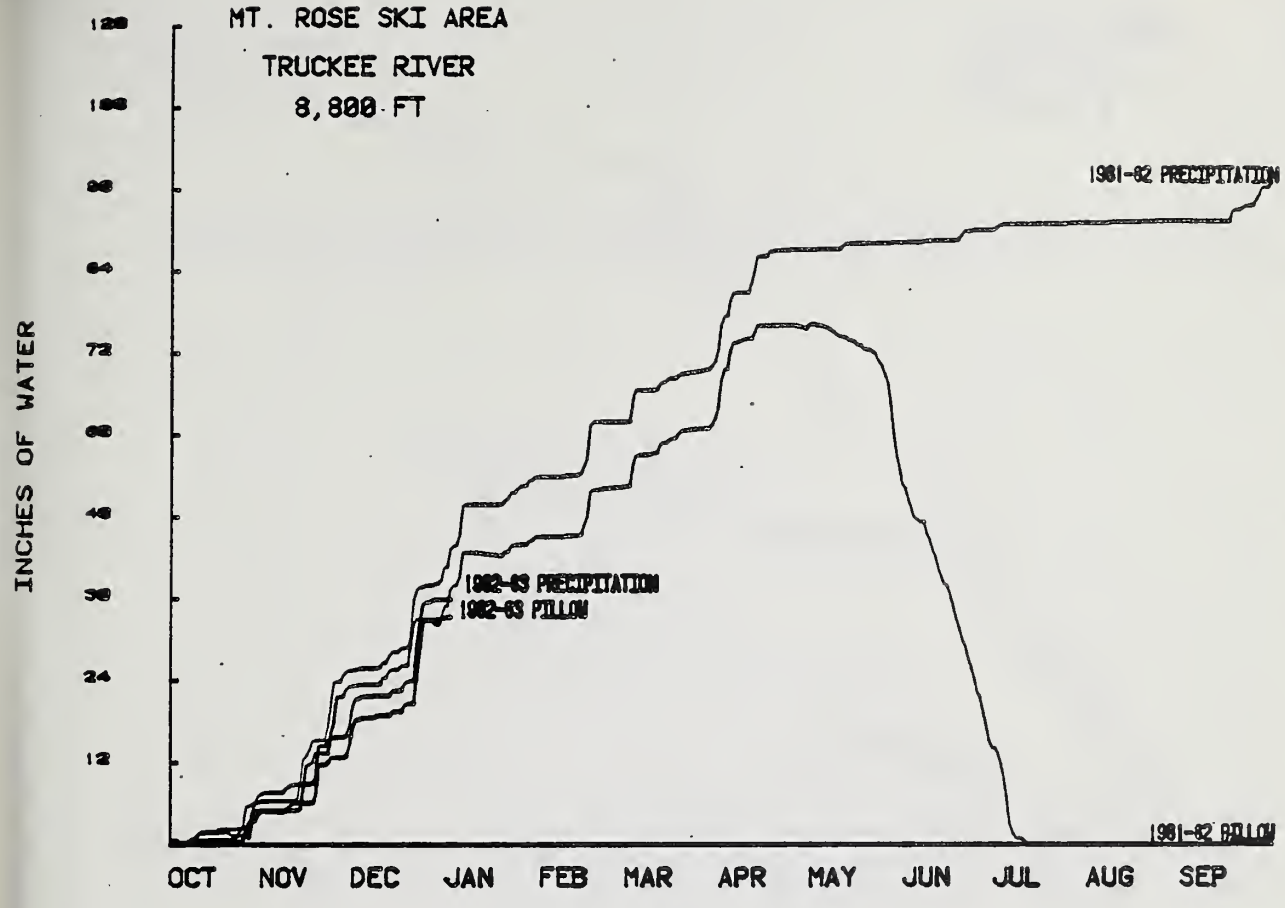
DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION					
		Month's Precip.	Last Year	*Normal	This Year	Last Year	*Normal
TRUCKEE-TAHOE							
Boca	5,575	5.77	5.72	3.89	17.26	17.43	7.90
Glenbrook	6,350	3.93	2.92	3.08	13.17	11.82	6.29
Incline Village	6,550	6.86	6.53	3.27	18.02	17.68	6.69
Reno	4,404	1.04	1.05	1.09	4.40	3.82	2.19
Sierraville	4,975	7.25	9.23	4.89	12.85	27.62	10.65
Tahoe City	6,230	6.72	11.76	6.39	19.74	30.34	12.46
Truckee Ranger Station	5,995	7.72	8.46	6.14	19.78	24.63	11.93
CARSON-WALKER							
Bridgeport Ranger Station	6,560	1.99	.65	1.81	7.23	4.15	4.22
Carson City	4,651	1.82	2.24	2.23	7.20	6.44	4.27
Fallon Experiment Station	3,965	.22	.08	.39	3.09	1.21	1.15
Hawthorne	4,215	.33	.02	.22	1.28	.94	1.08
Minden	4,720	1.20	1.42	1.54	4.48	3.44	3.03
Twin Lakes	7,829	8.25	10.96	8.59	25.86	28.07	17.28
Woodfords	5,971	4.68	4.38	3.96	16.02	15.14	8.16
Yerington	4,375	.39	0.02	0.60	2.21	1.11	1.48
HUMBOLDT							
Austin	6,605	1.03	.73	1.08	3.67	2.29	3.00
Battle Mountain	4,530	.45	.22	.77	2.56	1.95	2.12
Deeth	5,338	1.12	3.23	.91	5.00	5.72	2.09
Elko	5,075	.86	3.14	1.13	3.75	4.37	2.80
Emigrant Pass	5,755	.47	2.18	1.33	3.91	4.21	3.29
Jiggs	5,760	.67	1.90	3.14	3.78	1.15	3.01
Lamoille	5,800	.91	2.76	1.65	4.16	5.75	4.77
Lovelock FAA	3,900	.24	.29	.40	2.77	1.82	1.31
Wildhorse	6,226	1.30	4.90	1.18	----	----	2.86
Paradise Valley	4,675	1.26	3.98	1.19	4.26	8.61	2.77
Wells	5,650	.78	3.26	1.06	2.97	5.39	3.00
Winnemucca	4,301	.52	1.64	.94	3.12	4.12	2.56
SNAKE-OWYHEE							
Contact	5,365	0.70	1.89	.74	2.29	4.55	1.82
Mountain City	5,620	1.22	2.60	----	3.96	5.80	----
Owyhee	6,491	.70	1.90	1.59	4.56	5.60	3.98
Tuscarora	6,170	1.38	4.40	1.63	6.16	8.79	4.02
EASTERN NEVADA							
Arthur	6,280	1.68	4.90	1.52	5.56	4.90	4.10
Ely	6,253	.46	.26	.71	2.77	4.10	1.97
Montello	4,880	.46	1.07	.61	2.27	2.63	1.82
Pequop	6,030	1.72	3.21	----	3.67	5.86	----
Ruby Lake	6,012	.91	3.82	1.59	3.79	6.47	3.72
NORTHERN GREAT BASIN							
Alturas Ranger Station	4,400	1.44	2.10	1.65	4.83	6.71	4.26
Cedarville	4,670	1.59	2.97	2.77	4.34	10.55	5.73
Ft. Bidwell	4,498	2.44	5.14	2.43	7.28	12.03	5.60
Orovada	4,310	.80	1.42	1.16	2.70	4.95	3.18
Susanville	4,148	1.46	2.51	2.64	7.22	11.22	5.49
CENTRAL GREAT BASIN							
Tonopah	5,426	.13	T	.24	2.12	2.41	1.01
LOWER COLORADO RIVER							
Caliente	4,402	.77	T	.84	2.49	.95	2.43
Las Vegas	2,162	.72	0	.37	1.36	.44	1.02
Pioche	6,165	1.16	.05	1.47	3.72	1.42	3.53
Bishop	4,118	2.67	.11	1.05	4.22	1.50	1.89

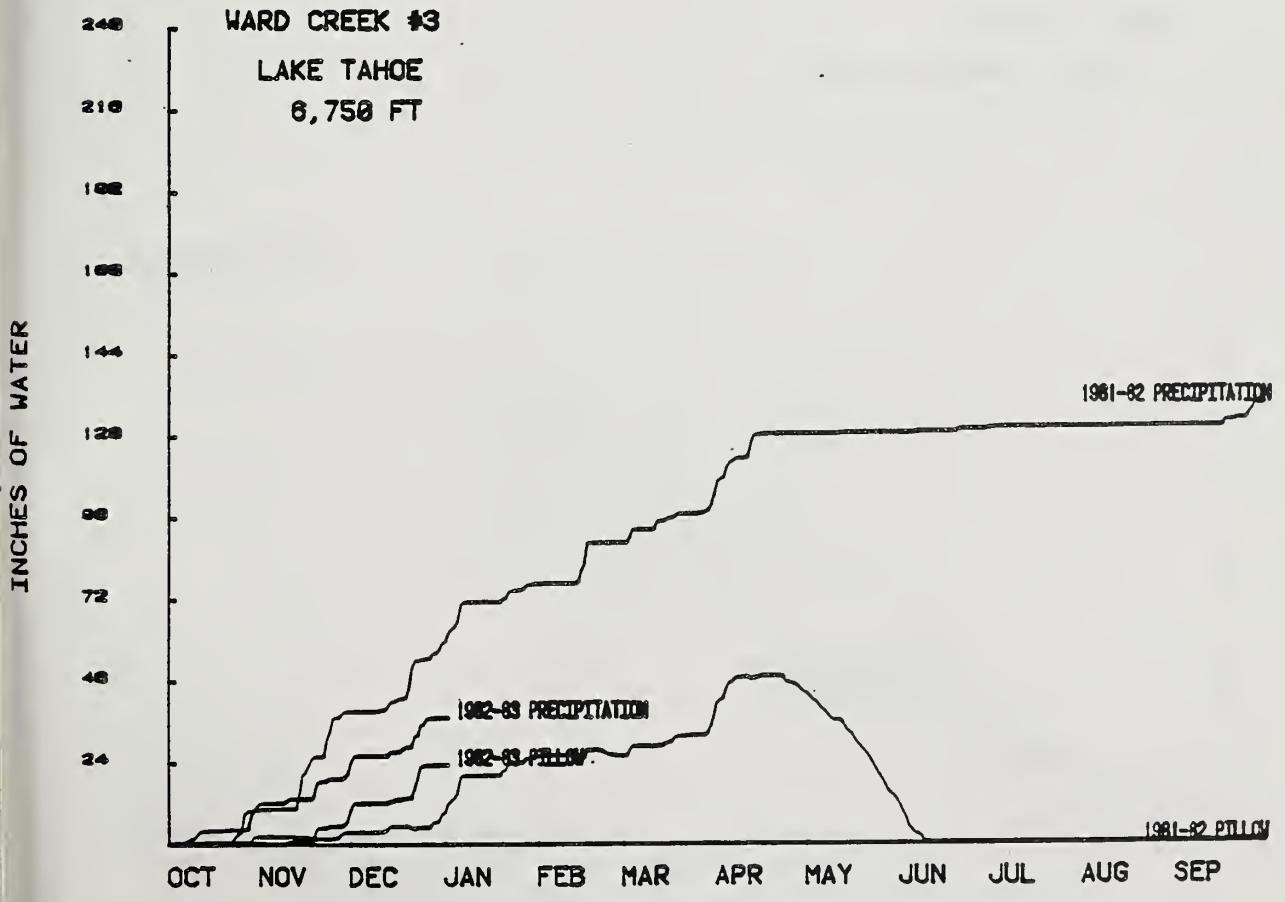
* Not Available
T Trace

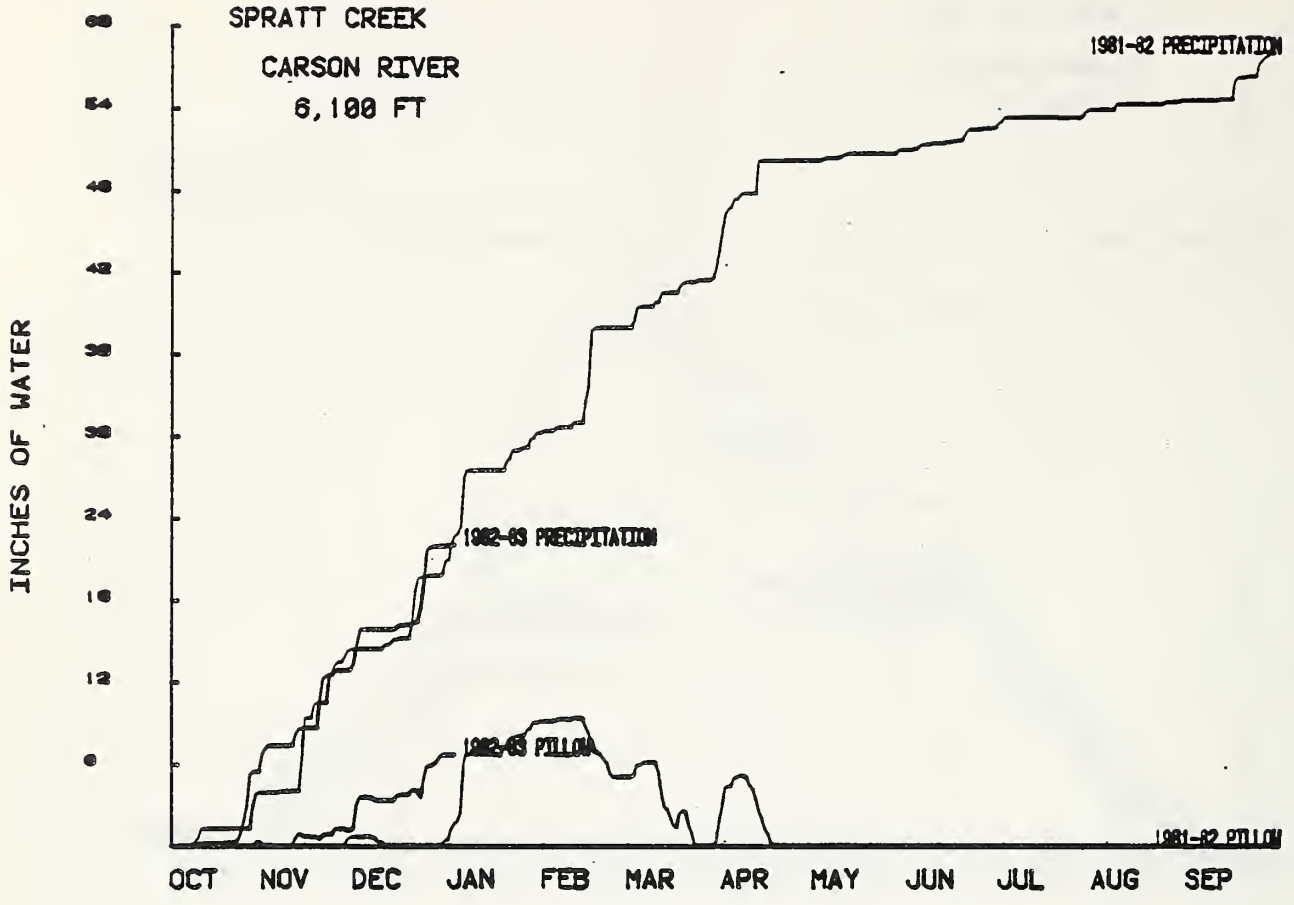
Normals are for 30 year period of 1941-1970.


EBBETTS PASS
CARSON RIVER
8,700 FT
INCHES OF WATER
1981-82 PRECIPITATION
1982-83 PRECIPITATION
1982-83 PILLOW
1981-82 PILLOW
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP


HYDROGRAPH FOR
EAST FORK CARSON RIVER NR GARDNERVILLE, NV
STREAMFLOW - CUBIC FEET/SEC
1982-83
1981-82
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP


MT. ROSE SKI AREA
TRUCKEE RIVER
8,800 FT
INCHES OF WATER
1981-82 PRECIPITATION
1982-83 PRECIPITATION
1982-83 PILLOW
1981-82 PILLOW
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP


WARD CREEK #3
LAKE TAHOE
6,750 FT
INCHES OF WATER
1981-82 PRECIPITATION
1982-83 PRECIPITATION
1982-83 PILLOW
1981-82 PILLOW
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP


SPRATT CREEK
CARSON RIVER
6,100 FT
1981-82 PRECIPITATION
1982-83 PRECIPITATION
1982-83 PILLOW
1981-82 PILLOW
INCHES OF WATER
0
12
24
OCT
NOV
DEC
JAN
FEB
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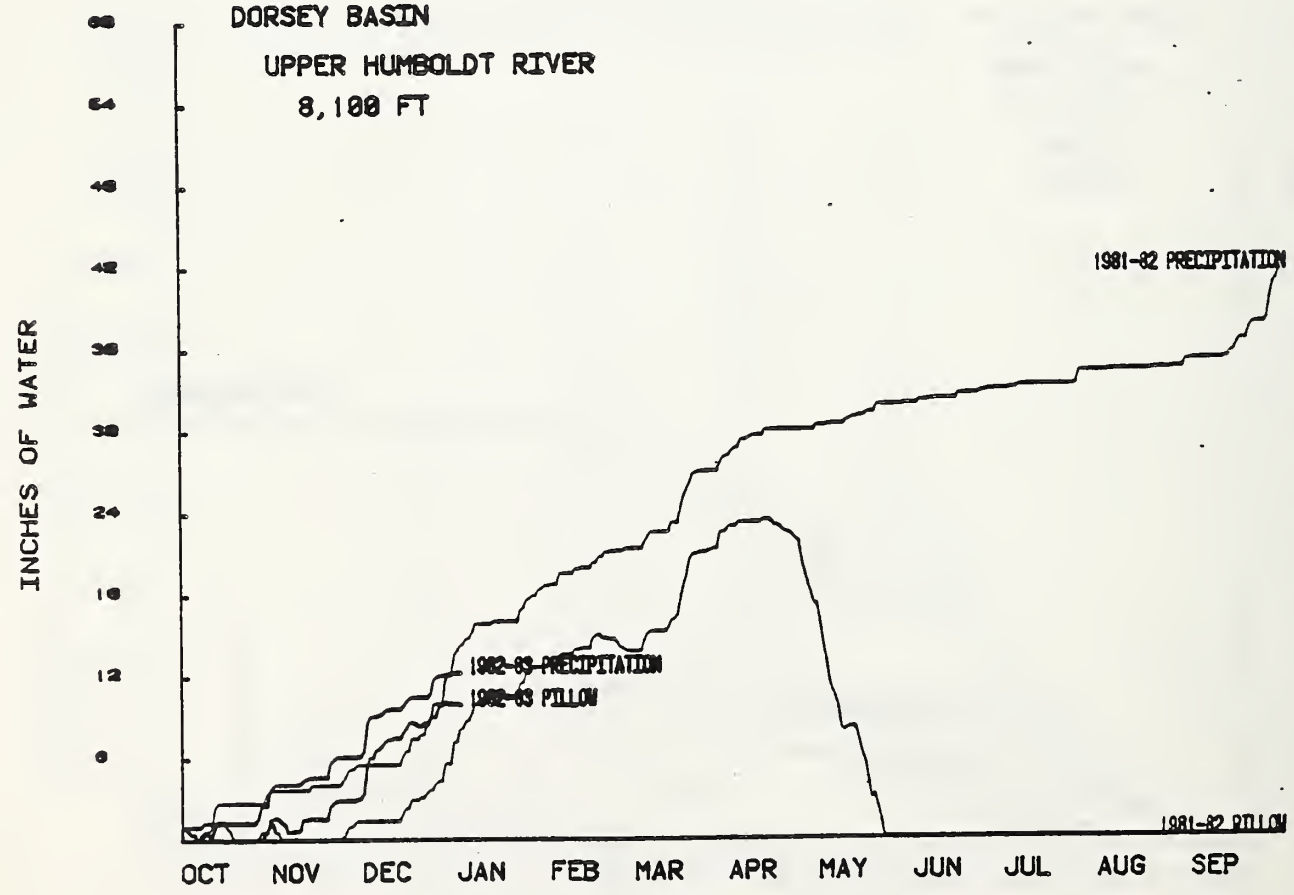
MAY
JUN
JUL
AUG
SEP


DORSEY BASIN
UPPER HUMBOLDT RIVER
8,100 FT
1981-82 PRECIPITATION
1982-83 PRECIPITATION
1982-83 PILLOW
1981-82 PILLOW
INCHES OF WATER
0
12
24
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP

AGENCIES COOPERATING IN COLLECTING DATA CONTAINED IN THIS BULLETIN

FEDERAL

- Agricultural Research Service
- Bureau of Reclamation
- Fish and Wildlife Service
- Forest Service
- Geological Survey
- Soil Conservation Service
- U. S. District Court - Federal Water Master
- NOAA, National Weather Service

STATE

- California Cooperative Snow Surveys
- California Department of Parks and Recreation
- California Department of Water Resources
- Colorado River Commission of Nevada
- Idaho Cooperative Snow Surveys
- Nevada Association of Conservation Districts
- Nevada Department of Conservation & Natural Resources
  - Division of Water Resources
  - Nevada State Forester
- Oregon Cooperative Snow Surveys
- University of Nevada, Desert Research Institute
- Utah Cooperative Snow Surveys
- White Mountain Research Station, Univ. of California

PRIVATE

- Amalgamated Sugar Company
- Kennecott Copper Corporation
- Nevada Irrigation District
- Owyhee Project North Board of Control
- Owyhee Project South Board of Control
- Pacific Gas and Electric Company
- Pershing County Water Conservation District
- Sierra Pacific Power Company
- Truckee - Carson Irrigation District
- Walker River Irrigation District
- Washoe County Water Conservancy District

Other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

UNITED STATES DEPARTMENT OF AGRICULTURE
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"The Conservation of Water begins with the Snow Survey"